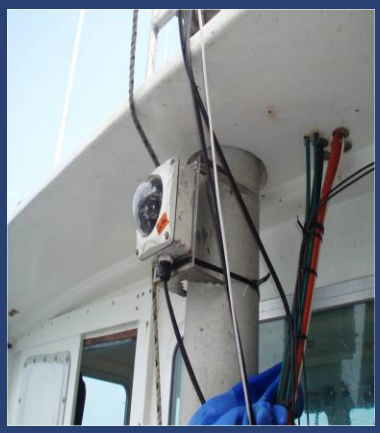
Science, Service, Stewardship

NOAA FISHERIES SERVICE



The Northeast Fisheries Science Center conducts ecosystem-based research and assessments of living marine resources, with a focus on the Northeast Shelf, to promote the recovery and long-term sustainability of these resources, and to generate social and economic opportunities and benefits from their use.

ARCHIPELAGO MARINE RESEARCH LTD.

Electronic Monitoring Pilot Study

Project Summary The Fisheries Sampling Branch of the Northeast Fisheries Science Center is initiating a pilot program in conjunction with Archipelago Marine Research Ltd., to test the applicability of electronic monitoring system (EMS) technology to collect catch and fishing effort data aboard commercial vessels. The goal of the study is to evaluate the utility of EMS as a means to monitor catch on a real-time basis in the Northeast groundfish sector fleet. The project will commence during the 2010 fishing year on ten volunteer vessels (participants will be compensated) in the trawl, longline and gillnet fisheries. Participating vessels will be based out of ports in Massachusetts, Rhode Island, and Maine to account for differences in fishing activity in multiple geographic ranges and effectively assess the applicability of EMS in sector-based management. Data obtained from the study will be compared to other catch reporting sources such as observer data, vessel trip reports, and dealer data.

The EMS system EMS technology is comprised of a control box, user interface (monitor and keyboard), up to four closed circuit television cameras, a GPS receiver, a hydraulic pressure transducer, and a drum rotation sensor. The control box, mounted in the wheelhouse, receives input from the sensors and logs digital video imagery. Cameras begin recording when the pressure transducer and drum sensor register activity (setting gear, retrieval). Cameras record activity on deck with a focus on discarded groundfish species. Cameras will be mounted in various locations based on these factors: size of vessel, type of fishery, hauling areas, discard chutes/conveyors/scuppers, stern/aft ramp and catch sorting areas.

What is the need and advantages of EMS monitoring? Sector members are required to have acceptable monitoring coverage under Amendment 16 of the Northeast Multispecies Fishery Management Plan. It is anticipated that at-sea monitors will be federally funded for the 2010 and 2011 fishing years. By year 2012, monitoring is expected to become an industry responsibility. EMS technology may provide a more cost effective alternative to human observers, if it is found to be a suitable surrogate. EMS technology may also provide a more detailed account of catch and therefore a more accurate portrayal of discarding events on a consistent basis.

Why opt for EMS? Several fisheries throughout the world utilize EMS as a valuable monitoring tool. Should EMS be found to be a suitable monitoring tool in the Northeast groundfish fleet, study results will help draft possible minimal standards for consideration in the development of groundfish monitoring plans. Furthermore, participating fishermen will play a vital role in whether EMS is deemed a success and becomes an alternate monitoring tool. For more information please contact Amy Van Atten at (508) 495-2266 or email Amy.Van.Atten@noaa.gov.